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10/532,882	11/07/2005	Baltsar Lundgren	B&LAB 3.3-017	2258
530 7590 12/05/2008 LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090				
EXAMINER CALANDRA, ANTHONY J				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,882

Applicant(s)

LUNDGREN, BALTSAR

Examiner

ANTHONY J. CALANDRA

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 11/07/2005
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed office Action

1. The communication dated 8/29/2008 has been entered and fully considered.
2. Claims 1-14 are currently pending. Claim 14 has been withdrawn from consideration.

Election/Restrictions

3. Applicant's election with traverse of group I in the reply filed on 8/29/2008 is acknowledged. The traversal is on the ground(s) that the subject matter is close enough in scope that there would not be a burden to the examiner to examine both groups of claims. This is not found persuasive because the method claims can include additional subject matter not found in the apparatus claims which would require additional search which would be a burden to the examiner. This includes the speed of rotation of the screw in relation to the speed of the fibers fed to the apparatus and residence time.

The requirement is still deemed proper and is therefore made FINAL.

Claim Interpretation

4. Applicant has used the means for language and therefore the examiner has interpreted said language as per 112 6th paragraph. The examiner has interpreted "means for" from the applicants written description in the following ways.

Claims 1, 2, 4, 5, 7-12

Examiner has interpreted from the applicant's written description "feeding means" as a curved tubular inlet pipe or its functional equivalents [Specification: pg. 4 "The feeding means comprises tubular section (18) which is curved"].

Claim 1

Examiner has interpreted from the applicant's written description "conveying means" as a conveyor worm or screw and its functional equivalents [Drawings: Figure 1B].

Claim Objections

5. Claim 8 is objected to because of the following informalities: Applicant refers to component (18) of the drawings in line 7 of the claim, however, applicant has eliminated referrals to the drawings in the other claims. Examiner believes this to be an oversight by the applicant. Appropriate correction is required.
6. Claim 8 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In instant claim 1 Applicant already states that the tubular section is curved such that fiber and steam are separated into two separate fractions by centrifugal action. Claim 8 does not appear to add any additional limitations to the structure of instant claim 1.

Claim Rejections - 35 USC § 112

7. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim

term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “tubular” in claims 1 is used by the claim to mean “a hollow enclosure circular, quadratic or rectangular cross sectional area”, while the accepted meaning is “a hollow cylinder or, an enclosure having a circular cross sectional area.” The term is indefinite because the specification does not clearly redefine the term.

Claims 2-12 are dependent on claim 1.

Applicant should clearly state on the record what the term “tubular” is meant to encompass. Upon stating whether tubular definition encompasses only circular or circular, rectangular, and quadratic, the examiner shall withdraw the rejection. Examiner notes, that should applicant choose only ‘circular’ claims 7 and 12 would contradict with claim 1.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,034,099 NILSSON, hereinafter NILSSON, in view of U.S. Patent 1,861,247 STEBBINS, hereinafter STEBBINS.

As for claims 1 and 8, NILSSON discloses an apparatus intended for separating steam and fibers (*Apparatus for separating steam from a mixture of steam and fibers* [abstract and Figure 3]).

NILSSON discloses an apparatus with an elongated feeding compartment (6) and two short sides, wherein the inlet (3) is located between said short sides. NILSSON further discloses a conveyor worm (10) located axially in the feeding compartment between the two short sides (*an elongated feeding compartment including a pair of short sides, and having an inlet arranged between the short sides of the elongated feeding compartment and feeding means for feeding a mixture of steam and fibers through said inlet and a conveyor worm arranged axially in the feeding compartment for feeding of fibers* [column 3 lines 50-62 and Figure 3]). The fibrous material is conveyed via the conveyor worm (10) to the pulp outlet (9) while the steam exits through outlet (5) of the apparatus (*where the separated fraction of fibers are conveyed further by means of the conveyer worm, while the separated light fraction of steam is fed through the inlet against the center of the elongated feeding compartment and removed through an outlet of the apparatus* [column 3 lines 50-62 and Figure 3]).

NILSSON does not disclose that the feeding means comprises a tubular section which is curved in such a way as to separate a mixture of steam and fibers through the passage of said

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tubular feeding means by way of centrifugal force. Examiner notes however that NILSSON does teach that the inlet of the blow pipe is preferentially located tangentially with respect to the vessel [column 3 lines 59-60]. It is the examiners position that said tangential entry would in fact cause some centrifugal separation as the fiber/steam flows against the inner wall of the apparatus.

STEBBINS discloses a method of separating solids from gasses using centrifugal force. STEBBINS discloses that as a result of using a curved inlet pipe the heavier particles will be thrown against the outer wall of the device while the air will travel to the central axis of the receptacle (*feeding means comprising a tubular section which is curved such that the mixture of steam and fibers during passage in the tubular section is separated under the influence of centrifugal forces in a substantially relatively heavy steam-less fraction of fibers in a radially outer layer and in a substantially light fiber-free fraction of steam in a radially inner, the tubular section is arranged in such a way that a heavy fraction of fibers is fed through the inlet peripherally into the elongated feeding compartment of the apparatus* [pg. 2 lines 10-27 and lines 28-32]). At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the curved tubular inlet of STEBBINS for the fiber/steam inlet of NILSSON. A person of ordinary skill in the art would be motivated to do so as STEBBINS further facilitate the separation of materials [pg 1 lines 1-27]. It is *prima facie* obvious to apply a known technique such a centrifugal separation using a curved pipe to a known device such as a screw mechanical separator ready for improvement to obtain predictable results. The separation of solids and gases by way of a curved pipe through centrifugal force would have been predictable to a person of ordinary skill.

As for claims 2 and 9, it is the examiner position that the apparatus of NILSSON can be adapted such that the difference between the velocity of the feeding means and the velocity of the conveyor worm is minimized. The speed of the motor, or gear reductions can change the speed of the conveyor worm or alternatively changing the flow of fiber/steam to the apparatus can change the speed of the fiber being fed into the apparatus.

As for claim 3, STEBBINS discloses that separation is supported by having a deflection plate located which extends tangentially into the air removal portion of a separation device which helps guide relatively clean air into the exit pipe [pg. 3 lines 124 -130, Figure 6].

As for claims 4 and 10, STEBBINS shows that prior to the curved inlet the feeding means has a substantially straight linear elongated outer tube portion that is positioned adjacent to the opposite end of the curved tubular section [Figure 1].

As for claims 5 and 11, NILSSON discloses that the mechanical separator device can be position from 0 to 90 degrees [column 4 lines 24-25]. NILSSON further discloses an embodiment where the mechanical separator is at 0 degrees (horizontal) and the inlet feeding means forms a 90 degree angle in relation to the horizontal laying mechanical separator [Figure 1].

As for claim 6, NILSSON teaches that the inlet of the blow pipe is preferentially located tangentially with respect to the vessel [column 3 lines 59-60].

As for claim 7 and 12, the cross section inlet of the curved "tube" of STEBBINS is rectangular [Figure 1 rectangular tube (13)].

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. CALANDRA whose telephone number is (571) 270-5124. The examiner can normally be reached on Monday through Thursday, 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AJC/

/Eric Hug/
Primary Examiner, Art Unit 1791